

WHAT IS CLAIMED IS:

1. A turbine nozzle segment of a turbine nozzle assembly to be installed onto a back of a turbine case of an aircraft engine, comprising:

a plurality of stator vanes;

5 an arc-like inner band being integrally molded at the inner end of a plurality of the stator vanes;

an arc-like outer band being integrally molded at the outer end of a plurality of the stator vanes;

10 an inner platform being formed in the inner band, the inner platform having a flange portion protruding inward at a back end thereof and an inner flow-path face on the outer side thereof;

an inner leg being formed on the inner side of the inner platform of the inner band, the inner leg having an arc-like seal support at the inner end thereof;

15 an outer platform being formed in the outer band, the outer platform having an outer flow-path face on the inner side thereof;

a forward outer leg being formed on the outer side of the outer platform of the outer band, the forward outer leg having a forward hook being able to fit into an nozzle support hook of the turbine case at the inner end of the forward outer leg;

20 an aft outer leg being formed at the back of the forward outer leg on the outer side of the outer platform; and

a hook member being formed at the circumferentially central portion of the back end of the outer platform, wherein an outer lock piece of a assembly fixture for installing the turbine nozzle assembly onto the turbine case can be hooked onto the hook member.

25 2. The turbine nozzle segment of claim 1, wherein

a back surface of the aft outer leg is configured so as to increase backward gradually in a radius of its arc; and

a front surface of the hook member is configured so as to be opposite to the back surface of the aft outer leg.

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3. The turbine nozzle segment of claim 2, wherein the front surface of the hook member is substantially parallel to the back surface of the aft outer leg.

4. The turbine nozzle segment of claim 1, wherein

the back surface of the aft outer leg is configured so that an area extending from a base end portion to a front end portion may increase backward gradually in a radius of its arc;

5 the front surface of the hook member is configured so as to be opposite to the back surface of the aft outer leg; and

the front surface of the hook member is substantially parallel to the back surface of the aft outer leg.

10 5. The turbine nozzle segment of claim 1, wherein a length of the hook member in the circumferential direction is in a range of 0.15 times larger than or equal to and 0.3 times smaller than or equal to a length of the outer platform in the circumferential direction.

15 6. The turbine nozzle segment of claim 1, wherein a height of the hook member is 0.1 times larger than or equal to a difference in height between the outer platform and the front end portion of the aft outer leg and is 0.25 times smaller than or equal to the difference in height.

20 7. The turbine nozzle segment of claim 2, wherein a length of the hook member in the circumferential direction is in a range of 0.15 times larger than or equal to and 0.3 times smaller than or equal to a length of the outer platform in the circumferential direction.

25 8. The turbine nozzle segment of claim 2, wherein a height of the hook member is in a range of 0.1 times larger than or equal to and 0.25 times smaller than or equal to a difference in height between the outer platform and the front end portion of the aft outer leg.